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10/599,920	06/28/2007	Patrick James McNaughton	18333.1.23.1.1	6593

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EXAMINER

HOGAN, JAMES SEAN

ART UNIT	PAPER NUMBER
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3752

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/599,920	Applicant(s) MCNAUGHTON, PATRICK JAMES	
	Examiner JAMES S. HOGAN	Art Unit 3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 15, 16, 29, 30 and 32 is/are rejected.
- 7) ☐ Claim(s) 11-14, 17-28 and 33-48 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 October 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/13/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 6, 8-10, 15, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 3,888,412 to Lindo.

3. As per claims 1, 15, Lindo discloses a wiper fluid heater apparatus having a heat exchanger (30) having a wiper fluid inlet (14) and outlet (18) and having a coolant passage (33) traversing through the heat exchanger, the coolant passage with a coolant passage plate (see Figure 6) coupled to an engine's coolant system, a chamber (10) for containing washer fluid in contact with a wiper fluid plate (51), pumping (12) means for transferring fluid from the chamber to a nozzle.

4. As per claim 2, the heat exchanger receives fluids directly from the engine block (see Figure 3).

5. As per claim 4, the heat exchanger comprises first and second ends.

6. As per claim 6, the coolant inlet (in Figure 3) is operably coupled to a heater core inlet and the coolant outlet is operably coupled to a heater core outlet to create a parallel engine coolant flow with the heater core.

7. As per claim 8, the heart exchanger of Lindo exhibits fins (52).

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8. As per claim 9 and 10, the wiper fluid outlet (18) is operably connected to the reservoir (10) and the wiper fluid inlet (14) is operably connected to the heat exchanger to input the wiper fluid onto the coolant passages (50), the channels defined by fins that touch an outside wall of the heat exchanger, the fins having an opening (51) between every other fin allowing the wiper fluid to pass to the adjacent channel.

9. As per claim 16 the coolant passage and wiper fluid plates are held together with fastening means (67).

10. Claim 32 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,364,010 to Richman.

11. As per claim 32, Richman et al teaches a heat exchanger (200) having a wiper fluid inlet (A) to allow wiper fluid to enter the heat exchanger and a wiper fluid outlet (b) to allow the wiper fluid to exit the heat exchanger, the heat exchanger having a bypass passage (see Figure 2); and a coolant passage traversing through the heat exchanger having a coolant inlet (C) and a coolant outlet (D), the coolant inlet and coolant outlet operably coupled to an engine's coolant system (100, 104) to allow passage of engine coolant through the heat exchanger.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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13. Claims 5 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,888,412 to Lindo.

14. The rejection of claim 1 above serves as the basis for the following.

15. As per claim 5, Lindo does not teach the coolant inlet (33) and the wiper fluid outlet (18) being located on a first end and the coolant outlet (40) and wiper fluid inlet are located on the second end to insure coolant flow and washer fluid flow are in opposite directions, however, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have arranged the inlets and outlets in the claimed way, since it has been held the rearranging parts of an invention involves only routine skill in the art. See *In re Japiske*, 86 USPQ 70.

16. As per claim 30, the chamber of Lindo is only partially above the heat exchanger, however, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have arranged chamber above the exchanger in the claimed way, since it has been held the rearranging parts of an invention involves only routine skill in the art. See *In re Japiske*, 86 USPQ 70.

17. Claims 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,888,412 to Lindo in view of U.S. Patent No. 6,133,546 to Bains.

18. As per claim 7, Lindo does not teach a thermostat. Bains teaches a thermostat (11) operably coupled to a wiper fluid heater (7) to control when the wiper fluid heater is powered on. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the heater of Lindo with the thermostat of Bains in order to regulate the heat within a fluid heater.

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19. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 3,888,412 to Lindo in view of U.S. Patent No. 4,877,186 to Scholl.

20. The rejection of claim 15 above serves as the basis for the following.

21. As per claim 29, Lindo does not feature a check valve on the inlet of the fluid.

Scholl teaches a check valve (12) positioned to prevent fluid from traversing back into a chamber (10). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the system of Lindo with the check valve of Scholl in order to prevent backflow.

Allowable Subject Matter

22. Claims 11-14, 17-28, 33-48 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is as follows.

U.S. Patent No. 5,183,099 to Bechu

U.S. Patent No. 6,669,109 to Ivanov et al

U.S. Patent No. 6,902,118 to Shank et al

U.S. Patent No. 4,090,668 to Kochenour

U.S. Patent No. 4,694,891 to Okumura et al

U.S. Patent No. 4,354,548 to Carlsson

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES S. HOGAN whose telephone number is (571)272-4902. The examiner can normally be reached on Mon-Fri, 6:00a-3:00p EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571)272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. S. H./
Examiner, Art Unit 3752

/Len Tran/
Supervisory Patent Examiner, Art Unit 3752